

Interruptions During Medication Administration in the Emergency Department

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Published In/Presented At

Baker, J., Albertson, J., Sabbatini, S. (2013, October 29). *Interruptions During Medication Administration in the Emergency Department*. Presented at: LVHN Research Day, Allentown, PA.

Albertson, J., Baker, J. (2013, November). *Interruptions During Medication Administration in the Emergency Department*. Presented at: The Academy of Medical-Surgical Nurses Greater Lehigh Valley Chapter #117 3rd Annual Conference, Charting a Course Amid the Sea of Change, Allentown, PA.

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PICO QUESTION

Do nurses who have received structured education about interruptions during the medication administration process compared with those who have not received education have a lower incidence of interruption, guarding themselves and protecting others?

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A Growing Body of Evidence

Since the ground-breaking report by the Institute of Medicine in 2000 “To Err is Human” which identified the toll of medical errors in terms of injury, death, and dollars, much study has been devoted to how and when errors occur.



Interruptions and Distractions

Reported as a Causative factor in 45% of medication errors, citing nurses themselves as the greatest offenders (Institute for Safe Medication Practices, 2008)



The Challenge



Changing the culture of the medicine administration process in the Emergency Department to reflect the seriousness and respect that it requires.

Barriers

- The Nature of the ED
 - Unscheduled Visits
 - Instability of Patients
 - Unpredictable Workflow
- The Layout of the ED
 - Open Spaces
 - Pyxis Unsheltered
- Nurses' perception of the value of multitasking



PROJECT PLANS

- Recruitment of Nurses for the study
 - 20 RNs with minimum 1 year experience
 - Must be scheduled to work between 1500-1900
- Pre-education Observation of Medication Administration
 - Retrieval, Preparation, Administration, Documentation
- Educational Tools
 - Interruptions Experienced by Registered Nurses Working in the Emergency Department, *Kosits et al, J Emerg Nurs 2011;37:3-7*
 - YouTube: Interruption Awareness: A Nursing Minute for Patient Safety http://www.youtube.com/watch?v=PGK9_CkhRNw.
 - Discussion Groups
- Post-education Observation of Medication Administration
 - Retrieval, Preparation, Administration, Documentation

Implementation Plan

■ Process Indicators

- Direct observation of non-secluded pyxis using Data Collection Tool between 1500-1900, week days and weekends
- Educated nurses' perception of their behavior

■ Outcome Indicators

- Decrease in medicine errors by ER Staff

Initial Findings

1 Hour of Observation

Average number of Interruptions per Medication Administration

■ Retrieval from Pyxis	1.2
■ Preparation of Medication	0.4
■ Administration to Patient	0.6
■ Documentation in Computer	1.8
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■ Total Med Administration Process	4
● Every instance of documentation was interrupted at least once!	

Source of Most Interruptions	LVHN Personnel	65%
	RNs	25%

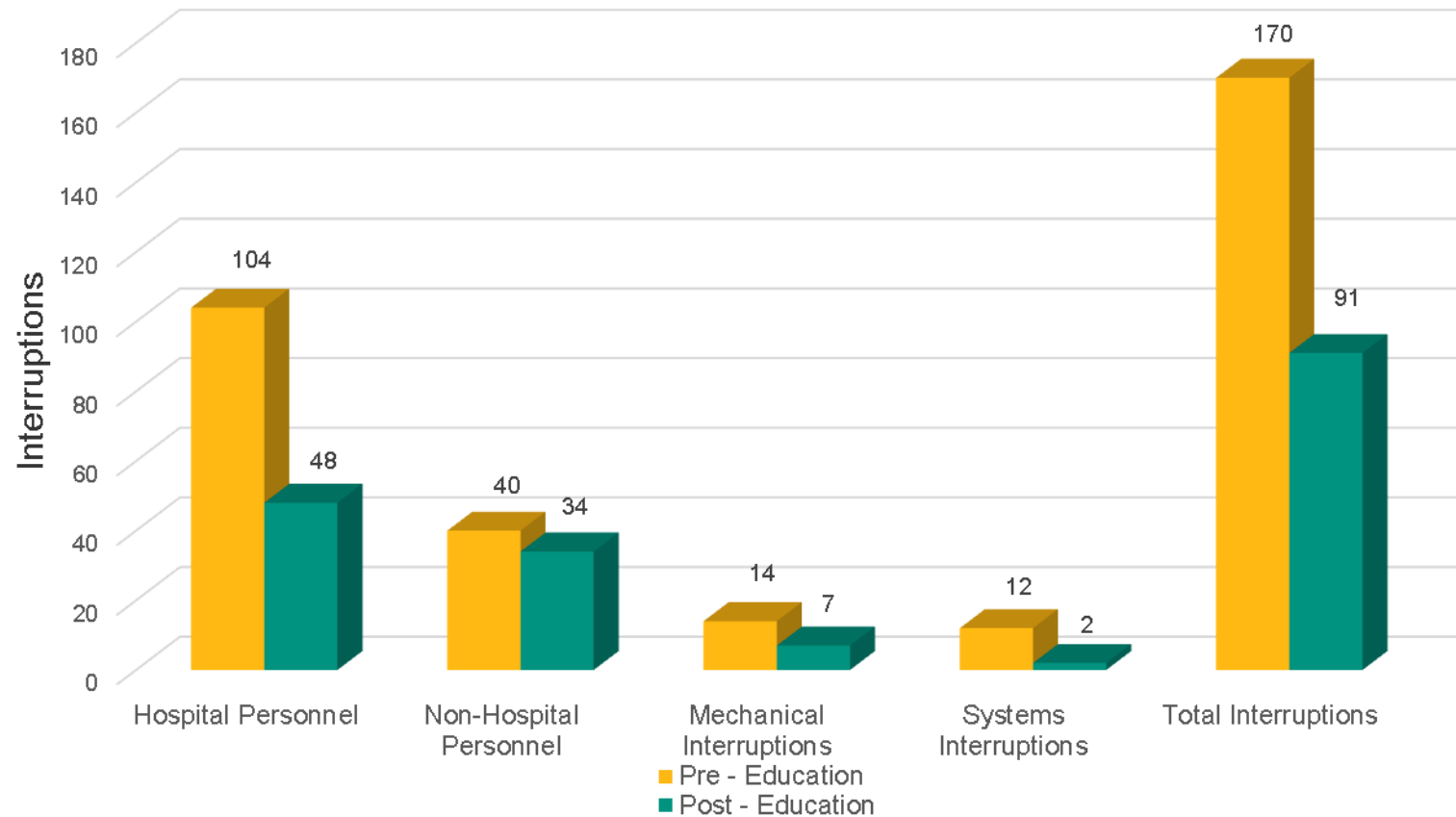
Data will only reflect Medication Administration within the Main ED;
will not include ancillary departments (Trauma Bay, IR, etc.)

Project Process

- Pre-data collection survey to ED nurses on perception of interruptions
- Observation of 49 medications administration opportunities
- Education sessions over two week period
- Observation of 49 medication administration opportunities post education

Findings

Summary of Total Interruptions Observed



Findings

- There was a statistical significant difference ($t = 3.47$, $df = 96$, $p < 0.05$) between pre and post educational intervention.
- Nurses protected themselves only 8 out of 91 opportunities post education.

Findings

- Nurses perception of interruptions confirmed findings in previous studies.
- Nurses perceive they do not interrupt others but direct observation proved they are the greatest source



Next Steps

- Roll out to remainder of ED Nurses.
- Education and awareness for ED physicians and ancillary staff.
- Network wide education and awareness.